

## Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



1-967  
A-2084  
10/1  
UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH ADMINISTRATION  
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE  
WASHINGTON 25, D. C.

In Cooperation with State and Federal Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING AUGUST 18, 1945  
(Seventeenth Cotton Insect Survey Report for 1945)

Reports this week from the states where the boll weevil occurs indicate rapid maturity of the crop and a large proportion of the squares punctured by weevils. Damage to bolls continues to increase and will result in serious losses in yields and grades of cotton unless late bolls are protected.

Leafworms have ragged or completely stripped the foliage from many thousands of acres of cotton along the Texas Gulf Coast from Corpus Christi to Port Lavaca. Practically all worms have now pupated with as many as 36 pupae per plant. A heavy emergence of leafworm moths in this area is expected in about a week, with the possibility of widespread dispersal to other areas of Texas and adjoining states toward the end of August. Much cotton is too far advanced to cause serious damage or necessitate control but late fields will need protection.

New infestations of leafworms were found in Lee County, east-central Arkansas, and in Jones, Fisher, Taylor, Collin, McCulloch, Wichita, Clay, Cooke, Terry, and Denton Counties of Texas. Leafworms now occur in scattered infestations over most of Texas except the northwestern area, but no infestations have been found in Oklahoma or states east of the Mississippi River. Infestations in Louisiana and Arkansas are developing slowly, although additional lightly-infested fields were reported from Bossier Parish, Louisiana and from Arkansas.

Bollworms are causing general light to medium damage in most areas of Texas except the southern, with heavy scattered damage in McLennan, Falls, Kaufman, Fisher, Jones, and Taylor Counties. Damage is also increasing in Oklahoma, Arkansas, and Louisiana. Bollworms may appear in damaging numbers in any field of cotton and destroy bolls until ready to open.

Aphids have increased in both dusted and untreated fields in Louisiana and are causing considerable damage to cotton dusted with calcium arsenate.

BOLL WEEVIL

TEXAS: With the exception of the High Plains area where general, favorable rains occurred, extremely hot and dry weather prevailed in Texas with maximum temperatures ranging well above 100° in many areas. Although the high temperatures slightly reduced weevil activity, most cotton is so rank that severe weevil damage continues, except in southern Texas where harvesting is nearly completed. Cotton is maturing rapidly and beginning to open in the Blackland area. The first bales for McLennan County (Waco) were ginned on August 17.

Examinations of 272 fields in 47 counties averaged 37% infested squares or a weighted average of 35% for the State. Nine percent of the fields were not

(Over)

infested; 19% ranged from 1 to 10% infestation; 19% ranged from 11 to 25% infestation; 17% ranged from 26 to 50% infestation; and 36% of the fields above 50% infestation. Infestation in 3 Gulf Coast counties averaged 62%; in 3 southeastern counties, 44%; in 2 east Texas counties, 23%; in 1 Cross-timber county, 15%; in 1 Edwards Plateau county, 22%; and in 5 Trans-Pecos counties, 24%.

OKLAHOMA: Cotton made good progress during the week. Local showers over much of the State and moderate temperatures were also favorable for boll weevils. Dr. C. F. Stiles, Extension Entomologist, reports that the second brood of adults is appearing in large numbers in the vicinity of Stillwater and that weevils were present in sufficient numbers in much of the State to damage small bolls. Farmers can still protect young bolls from boll weevils and bollworms by dusting with calcium arsenate.

The infestation in 125 fields examined in 15 counties averaged 36% with a weighted average for the State of 28%. Two percent of the fields were not infested; 12% ranged from 1 to 10% infestation; 21% from 11 to 25% infestation; 32% from 26 to 50% infestation; and 33% over 50% punctured squares. The infestation in one northeastern county averaged 15%; in 6 east central counties, 24%; in 3 southeastern counties, 62%; in 2 central counties, 23%; in 3 south central counties, 44%; and in 1 southwestern county, 22%.

LOUISIANA: Boll weevils are now infesting most of the squares in Louisiana. In the 368 fields examined this week an average of 73% of the squares were punctured. Only 1% of the fields had less than 10% infestation; 7% of the fields ranged from 11 to 25%; 11% of the fields from 26 to 50%; and 81% of the fields had more than 50% of the squares infested. The fields examined in the southwestern parishes averaged 25% infestation but in the other areas the average was from 47 to 86%. The heaviest infestations occurred in the northern third of the State.

ARKANSAS: Boll weevil damage continues to increase. The average infestation was 44% in 186 fields examined this week in the southern third of Arkansas. The average for the State was 22% last week.

Three percent of the fields were not infested; 13% ranged from 1 to 10% infestation; 19% from 11 to 25% infestation; 25% from 26 to 50% infestation; and 40% of the fields had over 50% infestation.

MISSISSIPPI: Although weather conditions were not as favorable for weevil development as in past weeks, infestation and damage increased considerably. Cotton is maturing rapidly. General migration of weevils is occurring and adults were reported numerous in squares and blooms. Infestations were found in 138 of the 149 fields examined in 26 counties with an average of 49% punctured squares in the infested fields and 46% for all fields examined this week.

In the Delta there was less rain than during the past few weeks and a few days of beneficial high temperatures. Conditions were generally favorable for dusting and many fields were dusted this week. Other growers claim they can produce all the cotton they can harvest with a reduced labor supply without dusting. Infestations were found in 93 of the 102 fields examined in 8 Delta counties, with an average of 49% punctured squares for the infested fields and 45% for all fields. No infestations were found in 9% of the fields; from 1 to 10% in 18% of the fields; from 11 to 25% in 12% of the fields; from 26 to 50% in 15% of the fields; and more than 50% infestation in 46% of the fields. All but 2 of the 359 fields examined this week on one plantation in Bolivar County were infested. The average infestation was 16%, the same as last week, though in some of the fields it has increased. Heavily-infested fields will receive 4 applications of calcium arsenate dust.

GEORGIA: Cotton has practically ceased fruiting in south Georgia. Boll damage is serious and in a 100-boll sample examined from southwest Georgia there were 71% of the locks damaged and 50% completely ruined by weevils. Infestations are still low in the extreme northwestern counties where cotton is just reaching the peak of squaring.

The average infestation was 40% in the 136 fields examined this week, practically all in north Georgia. The average infestation in 3 southeastern fields was 40%; in 8 southwestern fields, 62%; in 79 northeastern fields, 47%; and in 46 northwestern fields, 22%.

SOUTH CAROLINA: Cool, wet weather with too much rain in most sections. Cotton plants in the Piedmont are becoming too rank. Growers are much interested in chemical defoliation and mechanical strippers for harvesting.

The weevil infestation in 70 fields examined in 10 northwestern counties averaged 51% punctured squares. All of the fields had above 25% infestation.

NORTH CAROLINA: Heavy rains were general and in many sections too much moisture is causing shedding of squares and small bolls. The infestation has risen sharply and weevils are causing a great deal of damage in the southeastern counties. The infestation in 94 fields examined from Raleigh eastward averaged 47% and in 35 Piedmont fields, 27%. The average for all fields was 41% infestation. Two percent of the fields were not infested; 16% of the fields ranged from 1 to 10%; 22% of the fields from 11 to 25%; 24% of the fields from 26 to 50%; and 36% of the fields above 50% infestation.

Reports on 44 fields in 6 eastern counties examined during the week ending August 11 that were received too late to include last week, averaged 39% infested squares.

VIRGINIA: Too much rain is also causing shedding in Virginia. The weevil infestation remains low, with an average of 8.5% in 20 fields examined in 3 southeastern counties. In all but 2 fields the infestation was below 25%.

#### COTTON FLEA HOPPER

TEXAS: Flea hopper populations showed a considerable increase this week. Examinations in 285 fields averaged 10 flea hoppers per 100 terminal buds in comparison to 6.2 last week. No flea hoppers were found in 22% of the fields; from 1 to 10 in 45% of the fields; from 11 to 25 in 20% of the fields; and 26 or more per 100 terminal buds in 13% of the fields.

OKLAHOMA: Flea hopper infestation continues light over most of the State. Examinations in 120 fields averaged 4.7 flea hoppers per 100 terminal buds. No flea hoppers were found in 22% of the fields; from 1 to 10 in 36% of the fields; from 11 to 25 in 38% of the fields; and 26 or more in 4% of the fields.

LOUISIANA: Flea hoppers have caused considerable damage in the northwestern parishes.

(Over)

OTHER PLANT BUGS

CALIFORNIA: Mr. George J. Harrison, of the U. S. Cotton Field Station at Shafter, reports that Lygus spp. have been doing considerable damage to cotton in the San Joaquin Valley for the past 3 or 4 weeks. At this date there are roughly twice as many nymphs as adults on cotton which probably means that where Lygus are a problem at present, the late August set of bolls will be materially reduced. For the past week considerable airplane dusting for Lygus control has been done in widely scattered areas.

Say's stinkbug is causing serious injury to a 160-acre field of cotton in Kern County. Apparently the stinkbugs are migrating from alfalfa that is being pastured.

ARIZONA:

Salt River Valley: Practically all cotton fields were fruiting heavily with about normal shed. Bolls are opening on stub cotton. There was a slight increase in plant bugs, principally Lygus spp.

Sweepings in the Goodyear area averaged 20 injurious insects per 100 sweeps on stub and 43 on plant cotton. At Mesa the averages were 18 per 100 sweeps. In the Buckeye area Lygus decreased somewhat, while there was little change in the stinkbug population. In the Litchfield area Lygus populations are still high and stinkbugs increased somewhat over last week. Populations in untreated fields averaged 38 per 100 sweeps.

Santa Cruz Valley: Weather hot and sultry with scattered showers. Cotton is very rank in many fields. Populations of injurious insects range from an average of 2 to 10 per 100 net strokes. Fields are being dusted the second time.

Pinal County: A considerable number of bolls are opening in the earlier planted fields. The injurious insect populations are decreasing in the Casa Grande-Eloy area but have increased considerably in the Coolidge area where cotton is later and there are large acreages of cotton. Sweepings at Casa Grande-Eloy ranged from 1 to 32 and at Coolidge from 9 to 47 per 100 net strokes.

NEW MEXICO: Sweepings in 40 fields in Dona Ana County ranged from 1 to 20 injurious insects per 100 net strokes, principally Lygus and superb plant bugs.

Prepared August 22, 1945.